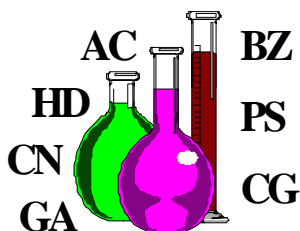


U.S. Army Center for Health Promotion and Preventive Medicine



General Facts About Nerve Agent GB

218-27-1096

General

GB is a lethal anticholinesterase agent. Its toxic hazard is high for inhalation, ingestion, and eye and skin exposure. Due to its high volatility, it is mainly an inhalation threat. Its rate of detoxification in the body is low. Effects of chronic exposures are cumulative. Following a single exposure to GB, daily exposure to concentrations of any nerve agent insufficient to produce symptoms may result in the onset of symptoms after several days. After symptoms subside, increased susceptibility persists for one to several days. The degree of exposure required to produce recurrence of symptoms, and the severity of these symptoms, depends on duration of exposure and time intervals between exposures.

Synonyms

Isopropyl methylphosphonofluoridate;
Isopropyl ester of methylphosphonofluoridic acid;
Methylisopropoxfluorophosphine oxide;
Isopropyl Methylfluorophosphonate;
O-Isopropyl Methylisopropoxfluorophosphine oxide;
O-Isopropyl Methylphosphonofluoridate;
Methylfluorophosphonic acid, isopropyl ester;
Isopropoxymethylphosphonyl fluoride;
GA;
Zarin; Sarin

Description

GB-type nerve agents are clear, colorless, and tasteless liquids. They are odorless in vapor and pure form.

Overexposure Effects

Signs and symptoms are the same regardless of route the poison enters the body (by inhalation, absorption, or ingestion): runny nose; tightness of chest; dimness of vision and miosis (pinpointing

of the eye pupils); difficulty in breathing; drooling and excessive sweating; nausea; vomiting; cramps, and involuntary defecation and urination; twitching, jerking, and staggering; and headache, confusion, drowsiness, coma, and convulsion. These signs and symptoms are followed by cessation of breathing and death.

Emergency and First Aid Procedures

Inhalation: hold breath and don respiratory protection mask; if severe signs of agent exposure appear, administer immediately, in rapid succession, all three Nerve Agent Antidote Kits, Mark I injectors; use mouth-to-mouth resuscitation when approved mask-bag or oxygen delivery systems are not available; do not use mouth-to-mouth resuscitation when facial contamination exists; administer oxygen if breathing is difficult; seek medical attention immediately.

Eye Contact: flush eyes immediately with water for 10-15 minutes then don a respiratory protective mask. Although miosis may be an early sign of agent exposure, do not administer an injection when miosis is the only sign present; seek medical attention immediately.

Skin Contact: don respiratory mask and remove contaminated clothing; wash contaminated skin with copious amounts of soap and water immediately using 10 percent sodium carbonate solution, or 5 percent liquid household bleach; rinse well with water to remove decontamination; administer an intramuscular injection with the Mark I Kit if local sweating and muscular symptoms occur; seek medical attention immediately.

Ingestion: do not induce vomiting; first symptoms are likely to be gastrointestinal; administer immediately 2 milligrams (mg) intramuscular injection of the MARK I Kit auto injectors; seek medical attention immediately.

Storage of GB

Nerve agent GB can be found in ton containers (heavy steel cylinders), artillery shells, mortar projectiles, rockets, and land mines.